

003334-02450
T05T20-TEB260

1 GAATTCGGCACGAGGTTTTTTTTTTTTTCCCCCTCTTTCTTTCTTTCTTTTGGC 60

61 ATCCGAAAGAGCTGTCAGCCGCCCGGGCTGCACCTAAAGGCGTCGGTAGGGGGATAAC 120

121 AGTCAGAGACCCCTCCTGAAAGCAGGAGACGGGACGGTACCCCTCCGGCTCTGCGGGGCGG 180

181 CTGCGGCCCCCTCCGTTCTTTCCCCCTCCCCGAGAGACACTCTTCCTTTCCCCCAGCAAG 240

241 ACACAGGGGCAGGAACGCGAGCGCTGCCCCCTCGCCATGGGAGGCGCTTCCTGCTGACG 300

FIG. 1A

CTCGCCCTCCTCTCGGCGCTGCTGTGCCGCTGCCAGGTTGACGGCTCCGGGGTGTTCGAG
301 -----+-----+-----+-----+-----+ 360

CTGAAGCTGCAGGAGTTTGTCAACAAGAAGGGGCTGCTCAGCAACCGCAACTGCTGCCGG
361 -----+-----+-----+-----+-----+ 420

GGGGGCGGCCCCGGAGGCGCCGGGCAGCAGCAGTGGGACTGCAAGACCTTCTTCGCGTC
421 -----+-----+-----+-----+-----+ 480

TGCCTGAAGCACTACCAGGCCAGCGTCTCCCCGAGCGCCCTGCACCTACGGCAGCGCC
481 -----+-----+-----+-----+-----+ 540

ATCACCCCCGTCCTCGGCGCCAACTCCTTCAGCGTCCCCGACGGCGCGGGCGGCGCCGAC
541 -----+-----+-----+-----+-----+ 600

CCCGCCTTCAGCAACCCCATCCGCTTCCCTTCGGCTTCACCTGGCCCCGGCACCTTCTCG
601 -----+-----+-----+-----+-----+ 660

CTCATCATCGAGGCTCTGCACACCGACTCCCCGACGACCTCACCACAGAAAACCCCGAG
661 -----+-----+-----+-----+-----+ 720

FIG. 1A (cont'd)

721 CGCCTCATCAGCCGCTGGCCACCCAGAGGCACCTGGCGGTGGGCGAGGAGTGGTCCCAG
-----+-----+-----+-----+-----+-----+ 780

781 GACCTGCACAGCAGCGGCCG/ACCGACCTCAAGTACTCCTATCGCTTTGTGTGTGATGAG
-----+-----+-----+-----+-----+-----+ 840

841 CACTACTACGGGGAAGGCTGCTCTGTCTTC/GCCGGCCCCGTGACGACCGCTTCGGTCAC
-----+-----+-----+-----+-----+-----+ 900

901 TTCACCTGTGGAGAGCGTGGCGAGAAGGTCTGCAACCCAGGCTGGAAGGGCCAGTACTGC
-----+-----+-----+-----+-----+-----+ 960

961 ACTGAGCCGATTTGCTTGCCCTGGGTGTGACGAGCAGCACGGCTTCTGCGACAAACCTGGG
-----+-----+-----+-----+-----+-----+ 1020

1021 GAATGCRAGTGCAGAGTGGGTGGCAGGGGCGGTACTGTGACGAGTGCATCCGATACCCA
-----+-----+-----+-----+-----+-----+ 1080

1081 GGCTGCCTGCACGGTACCTGTCAGCAGCCATGGCAGTGCAACTGCCAGGAAGGCTGGGGC
-----+-----+-----+-----+-----+-----+ 1140

FIG. 1A (cont'd)

1141 GGCCTTTTCTGCAACCAGGACCTGAACTACTGCACTCACCACAAGCCATGCAAGAATGGT 1200

1201 CCGTGTAACGTGGTTGTGGCCAGTCCCCTCGATGTGAACAAGAACGGCTGGACCCATGTGT 1260

1261 GGCTCCAGCTGCGAGATTGAAATCAACGAATGTGATGCCAACCCCTTGCAAGAATGGTGGA 1320

1321 AGCTGCACGGATCTCGAGAACAGCTATTCCTGTACCTGCCCCCAGGCTTCTATGGTAAA 1380

1381 AACTGTGAGCTGAGTGCAATGACTTGTGCTGATGGACCGTGCTTCAATGGAGGGCGATGC 1440

1441 ACTGACAACCCCTGATGGTGGATACAGCTGCCGCTGCCCCTGGGTATTCTGGGTTCAC 1500

1501 TGTGAAAAGAAAATCGATTACTGCAGTTCCAGCCCTTGTGCTAATGGAGCCCAGTGCCTT 1560

FIG. 1A (cont'd)

1561 GACCTGGGGAACCTCCTACATATGCCAGTGCCAGGCTGGCTTCACTGGCAGGCACTGTGAC 1620

1621 GACAACGTGGACGATTGCGCCTCCTTCCCTGCGTCAATGGAGGGACCTGTCAGGATGGG 1680

1681 GTCAACGACTACTCCTGCACCTGCCCCCGGGATACAACGGGAAGAACTGCAGCAGCCG 1740

1741 GTGAGCAGATGCGAGCACAACCCCTGCCACAATGGGGCCACCTGCCACGAGAGAAGCAAC 1800

a

1801 CGCTACGTGTGCGAGTGCGCTCGGGGCTACGGCGGCCTCAACTGCCAGTTCTGCTCCCC 1860

1861 GAGCCACCTCAGGGGCCGGTCATCGTTGACTTCACCGAGAAGTACACAGAGGGCCAGAAC 1920

1921 AGCCAGTTTCCCTGGATCGCAGTGTGCGCCGGGATTATTCTGGTCCTCATGCTGCTGCTG 1980

FIG. 1A (cont'd)

2401 TACCAGTCGGTGACGTCATATCAGAAGAGAAAGATGAGTGCATCATAGCAACTGAGGTG 2460

2461 TAAAACAGACGTGACGTGGCAAAGCTTATCGATACCGTCATCAAGCTT 2508

FIG. 1A (cont'd)

7326-038 (SHEET 6 OF 37)

1 GAATTCGGCAGGAGGTTTTTTTTTTTTTCCCTCTTTCTTTCTTTCTTTTCCCATCCGAAAG 69

70 AGCTGTCAGCCGCCGCCGGCTGCACCTAAAGGCGTCGGTAGGGGGATAACAGTCAGAGACCCCTCCTGA 138

139 AAGCAGGAGACGGGACGGTACCCCTCCGGCTCTGCGGGCGGGCTGCGGCCCTCCGTTCTTTCCCTC 207

208 CCCGAGAGACACTCTTCCTTTCCCCCACGAAGACACAGGGGCAGGAACGCGAGCGCTGCCCTCCGCC 276

277 ATGGGAGGCCGCTTCCTGCTGACGCTCGCCCTCCTCTCGGGCGCTGCTGTGCGCTGCCAGGTGACGGC 345

346 TCCGGGGTGTTCCGAGCTGAAGCTGCAGGAGTTTGTCAACAAGAAGGGGCTGCTCAGCAACCGCAACTGC 414

415 TGCCGGGGGGCGGCCCGGAGGCGCCGGGCAGCAGCAGTGCGACTGCAAGACCTTCTTCCCGCTCTGC 483

FIG. 1B

484 CTGAAGCACTACCAGGCCAGCGTCTCCCCGAGCCGCCCTGCACCTACGGCAGCGCCAT

553 CTCGGCGCCAACTCCTTCAGCGTCCCGACGGCGCGGGCGGCGCCGACCCCGCCTTCA

622 CGCTTCCCCCTTCGGCTTCACCTGGCCCGGCACCTTCTCGCTCATCATCGAGGCTCTGC

691 CCCGACGACCTCACCACAGAAAACCCCGAGCGCCTCATCAGCCGCCTGGCCACCCAGA

760 GTGGGCGAGGAGTGGTCCCAGGACCTGCACAGCAGCGGCCGCACTGACCTCAAGTAC

FIG. 1B (cont'd)

GTGTGATGAGCACTACTACGGGGAAGGCTGCTCTGTCTTCTGCGGCCCCGTGACGACCGCTTCGGT 897

898(CACTTCACCTGTGGAGAGCGTGGCGAGAAGGTCTGCAACCCAGGCTGGAAAGGGCCAGTACTGCACTGAG 966

967 CCGATTTGCTTGCCCTGGGTGTGACGAGCAGCACGGCTTCTGCGACAAACCTGGGGAATGCAAGTGCAGA 1035

1036 GTGGGTTGGCAGGGGCGGTACTGTGACGAGTGCATCCGATACCCAGGCTGCCTGCACGGTACCTGTCAG 1104

1105 CAGCCATGGCAGTGCAACTGCCAGGAAGGCTGGGGCGGCCTTTTCTGCAACCAGGACCTGAACTACTGC 1173

1174 ACTCACCACAAGCCATGCAAGAATGGTGCCACATGCACCAACACCGGTCAGGGGAGCTACACTTGTCT 1242

1243 TGCCGACCTGGGTACACAGGCTCCAGCTGCGAGATTGAAATCAACGAATGTGATGCCAACCCTTGCAAG 1311

FIG. 1B (cont'd)

1312 AATGGTGGAAGCTGCACGGATCTCGAGAACAGCTATTCTGTACCTGCCCCCAGGCTTCTATGGTAAA 1380

1381 AACTGTGAGCTGAGTGCAATGACTGTGCTGATGGACCGTGCTTCAATGGAGGGCGATGCACTGACAAC 1449

1450 CCTGATGGTGGATACAGCTGCCGCTGCCCACTGGGTTATTCTGGGTTCAACTGTGAAAAGAAAATCGAT 1518

1519 TACTGCAGTTCCAGCCCTTGTGCTAATGGAGCCCAGTGCGTTGACCTGGGGAACTCCTACATATGCCAG 1587

1588 TGCCAGGCTGGCTTCACTGGCAGGCACTGTGACGACAAAGTGGACGATTGCGCCTCCTTCCCCTGCGTC 1656

1657 AATGGAGGGACCTGTCAGGATGGGGTCAACGACTACTCCTGCACCTGCCCCCGGGATACAACGGGAAG 1725

FIG. 1B (cont'd)

1726 AACTGCAGCACGCCGGTGAGCAGATGCGAGCACAACCCCTGCCACAATGGGGCCACCTGCCACGAGAGA 1794

1795 AGCAACCGCTACGTGTGCGAGTGGCTCGGGGCTACGGCGGCCTCAACTGCCAGTTCTGCTCCCCGAG 1863

1864 CCACCTCAGGGGCCGGTCATCGTTGACTTCACCGAGAAGTACACAGAGGGCCAGAACAGCCAGTTTCCC 1932

1933 TGGATCGCAGTGTGCGCCGGGATTATTCTGGTCCTCATGCTGCTGCTGGGTGCGCCGCCATCGTCGTC 2001

2002 TCGGTCAGGCTGAAGGTCGAGAAGAGGCACCAACAGCCCGAGTCTGTCAGGAGTGAAACGGAGACCATG 2070

2071 AACAACTGGCGAACTGCCAGCGCGAGAAGGACATCTCCATCAGCGTCATCGGTGCCACTCAGATTAAA 2139

2140 AACACAAATAAGAAAGTAGACTTTCACAGCGATAACTCCGATAAAAACGGCTACAAAGTTAGATACCCA 2208

FIG. 1B (cont'd)

2209 TCAGTGGATTACAATTGGTGCATGAACTCAAGAATGAGGACTCTGTGAAAGAGGAGCATGGCAAATGC 2277

2278 GAAGCCAAGTGTGAAACGTATGATTCAGAGGCAGAAGAGAAAAGCGCAGTACAGCTAAAAAGTAGTGAC 2346

2347 ACTTCTGAAAGAAAACGGCCAGATTCAGTATATTCCACTTCAAAGGACACAAAGTACCAGTCGGTGTAC 2415

2416 GTCATATCAGAAGAGAAAGATGAGTGCATCATAGCAACTGAGGTTAGTATCCCACTGGCACTCGGACA 2484

2485 AGTCTTGGTGTGTGATTCCCATCAGCGCAGGTCAGGGCGGCCAAACCATCTACCTGCTGCCACAGTC 2553

2554 ATCTGTACCCAATGAAAACCTGGCCACCTTCAGTCTGTGGCACTGCAGACGTTGAAAAAAGTTGTGTGG 2622

FIG. 1B (cont'd)

2623 ATTAACATAAGCTCCAGTGGGGGTACAGGGACAGCAATTTTTCAGGCAAGGGTATAACTGTAGTGCA 2691

2692 GTGTAGCTTACTAACCCTACTGACTCATTCCTTCGTGTGCTTCCTGCAGAGCCTGTTTTGCTTGGCA 2760

2761 TTGAGGTGAAGTCCTGACCCTCTGCATCCTCATAGTCCTCTGCTTCTTTTTATTAAACCTCTTCTGGTC 2829

2830 TCTGCTTGTGTTTCTCTCAACAGGTGTAAACAGACGTGACGTGCAAGCCTT 2883

FIG. 1B (cont'd)

1	MGGRFLTLA	LLSALLCRCQ	VDGSGVFELK	LQEFVNKKGL	LSNRNCCRGG	GPGGAGQQQC
61	DKTFFRVCL	KHYQASVSPE	PPCTYGSALT	PVLGANSFSV	PDGAGGADPA	FSNPIRFPFG
121	FTWPGTFSLI	IEALHTDSPD	DLTTENPERL	ISRLATQRHL	AVGEEWSQDL	HSSGRTDLKY
181	SYRFVCDHEY	YGEGCSVFCR	PRDDRFGHFT	CGERGEKVCN	PGWKGYCTE	PICLPGCDEQ
241	HGFCDKPGEC	KCRVGWQGRY	CDECIRYPGC	LHGTCQQPWQ	CNCQEGWGGL	FCNQDLNYCT
301	HHKPKKNGAT	CTNTGQGSYT	CSCRPGYTGS	SCEIEINECD	ANPCKNGGSC	TDLENSYSCT
361	CPPGFYGKNC	ELSAMTCADG	PCFNGGRCTD	NPDGGYSCRC	PLGYSGFNCE	KKIDYCSSSP
421	CANGAQCVDL	GNSYICQQCA	GFTGRHCDDN	VDDCASFCV	NGGTCQDGVN	DYSCTCPGKY
481	NGKNCSTPVS	RCEHNPCHNG	ATCHERSNRY	VCECARGYGG	LNCQFLLPEP	PQGPVIVDFT
541	EKYTEGQNSQ	FPWIAVCAGI	ILVLMLLGC	AAIVVCVRLK	VQKRHHQPEA	CRSETETMNN
601	LANCQREKDI	SISVIGATQI	KNTNKKVDFH	SDNSDKNGYK	VRYPSPVDYNL	VHELKNEHSV
661	KEEHGKCEAK	CETYDSEAAE	KSAVQLKSSD	TSEKRPDSV	YSTSKDTKYQ	SVYVISEEKD
721	ECIIATEV					

FIG. 2

C-Delta-1	1	MGGRLFLTLA-LLSALLCRQVDGSGVPELKLQEFVNKKGLLSNRNCCRGGSPGGAGQQQC	60
X-Delta-1	1	MGQQRMLTLL-VLSAVL--CQISCGLFELRLQEFVNKKGLLGNMNCCEGSL--ASLQRC	56
Delta	1	--HHWIKCLLTAFICFTVIVQVHSSGSPFELRLKYPSNDHGRDNEGRCCSGESDGAATGKCLG	59
C-Delta-1	61	DCKTFPRVCLKHYSASVSPEPPCTYGSAITPVLGANSFVSPDGAGGADPAFSNPIRFPFGF	121
X-Delta-1	57	ECKTFPRIICLKHYQSNVSPEPPCTYGGAVTPVLGTNSFVVPES-SNADPTFSNPIRFPFGF	116
Delta	60	SCKTRFRLLCLKHYSATIDTTSQCTYGDVITPIILGENSVNLTDAQRFNKGFTNPIQFPFSP	120
C-Delta-1	122	TWPGTFSLIEALHTDSPDDLTTENPERLISRLATQRHLAVGREWSQDLHSSGRTDLKYSY	182
X-Delta-1	117	TWPGTFSLIEAIIHADSADDLNTENPERLISRLATQRHLTVGEQWSQDLHSSDRTELKYSY	177
Delta	121	SWPGTFSLIVEAWH-DTNNSGNARTNKLILQRLLVQQLVLEVSSEWKTNKSESQYTSLELYDF	180
C-Delta-1	183	RFVCDHEYHYGEGCSVFPCRPRDDRFGHFTCGERGEKVCNPGWKQGYCTEPICLPGCDEHGHF	243
X-Delta-1	178	RFVCDHEYHYGEGCSVDYCRPRDDAFGHFSCGERGEKLCNPGWKGLYCTEPICLPGCDEHGHY	238
Delta	181	RVTCDLNYGSGCAKFCRPRDDSFGHSTCSSETGEIICLTGWQGDYCHIPKCAKGC--HGH	239
DSL			
C-Delta-1	244	CDKPGECKCRVWQGRYCDECI RYPGCLHGTCQOPWQCNCQEGWGGGLFCNQDLNYCTHHP	304
X-Delta-1	239	CDKPGECKCRVWQGRYCDECI RYPGCLHGTCQOPWQCNCQEGWGGGLFCNQDLNYCTHHP	299
Delta	240	CDKPNQCVCLGWKGALENECVLEPNICIHGTCNKPWTICINEGWGGGLYCNQDLNYCTNHRP	300
EGF1			
C-Delta-1	305	CKNGATCTNTGQGSYTCSCRPGYTGSCEIEINECDA--NPCKNGGSCTD--LENSYSCT	360
X-Delta-1	300	CENGAATCTNTGQGSYTCSCRPGYTGSNCEIEVNECDA--NPCKNGGSCSD--LENSYTC	355
Delta	301	CKNGGTCTFNTGEGLYTCKCAPGYSGDDCENEIYSCDADVNPCKQNGGTCIDEPHTKTGKCH	361
EGF3			
C-Delta-1	361	CPPGFYGKNCELSAMTCADGPCFNG-----GRCTDNPDGGYSRCPLGYSGFNCEKKIDYC	416
X-Delta-1	356	CPPGFYGKNCELSAMTCADGPCFNG-----GRCADNPDGGYICFCPGVYSGFNCEKKIDYC	411
Delta	362	CRNGWSGKMCCEKVLTCSDKPCHQGICRNVRPGLGSKGQGYQCECPIGYSGFNCDLQLDNC	422
EGF5			
C-Delta-1	417	SSSPCANGAQCVDLGNSYICQCAAGFTGRHCDNVDNDDCASFPFCVNGGTCODGVNDYSCTCP	477
X-Delta-1	412	SSNPCANGARCEDLGNSYICQCEGFSGRNCDNLDLDDCTSFPCONGGTCODGINDYSCTCP	472
Delta	423	SPNPCINGGSCQPSGK--CICPSGFSGTRCETNIDDCLGHQCEBNGGTCIDMVNQYRCQCV	480
EGF6			
C-Delta-1	478	PGYNKGKNCSTPVSRCEHNPCNNGATCHERSNRYVCECARGYGGGLNCOFLLEPPQGPP	534
X-Delta-1	473	PGYIGKNCSTPITKCEHNPCNNGATCHERNRNVCCARGYGGGLNCOFLLEPPQGPP	524
Delta	481	PGFHTGTHCSKVDLCLIRPCANGGTCNLNNDYQCTCRAGFTGKDCSVDIDECSGPPCHNG	541
EGF8			
C-Delta-1	535	-----VIVDFTE--KYTEGQNSQFPW--IAVCAGIILVL	564
X-Delta-1	525	-----EKPVVVDLTE--KYTEGQSGQFPW--IAVCAGIILVL	557
Delta	542	GTCMNRVNSFECVCANGFRGKQCDDESYDSVTFDAHQYGATTQARADGLANAQVVLIAVFS	602
EGF9			
C-Delta-1	565	MLLLGCAAIVVCVRLKVQKRHHQPEACRSETE TMNNLANCQREKD--ISISVIGATQIKNT	623
X-Delta-1	558	MLLLGCAAIVVCVRRVRVQKRRHQPEACRGE SKTMNNLANCQREKD--ISVSFIGTQIKNT	616
Delta	603	VAMPLVAVIAACVVFCKRRRKRAQEKDNAAEARKQNEQNAVATMHHNGSAVGVALASASMG	663
TM			
C-Delta-1	624	NKKVDFHSD-NSDKNGYKVRYPVSDYNLVHELKNEDSVKEEHGKCEAKCETYDSEAEKSA	683
X-Delta-1	617	NKKIDFLSESNNENKNGYKPRYPVSDYNLVHELKNEDSPKEERSKCEAKCSSNDSSEEDVNS	677
Delta	664	GKTGSNSGLTFDGGNPNIIKNTWDKSVN-NICASAAAAAAAAAAAAADECLMYGGYVASVADN	723
C-Delta-1	684	-----VQLKSSDTSERK-----RPDSVYSTSKDTKYQSVYVISEEKDECIIATEV	728
X-Delta-1	678	-----VHSK-RDSSERR-----RPDSAYYSTSKDTKYQSVYVISDEKDECIIATEV	721
Delta	724	NNANSDFCVAPLQRAKSQKQLNTDPTLMHRGSPAGTSAKGASGGGPGAAEGKRIISVLGEGS	784
Delta	785	YCSQRWPSLAAAGVAGACSSQLMAAASAAGTDGTAQQQRSVVCCTPHM	832

FIG. 3

2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023 2024 2025 2026 2027 2028 2029 2030 2031 2032 2033 2034 2035 2036 2037 2038 2039 2040 2041 2042 2043 2044 2045 2046 2047 2048 2049 2050 2051 2052 2053 2054 2055 2056 2057 2058 2059 2060 2061 2062 2063 2064 2065 2066 2067 2068 2069 2070 2071 2072 2073 2074 2075 2076 2077 2078 2079 2080 2081 2082 2083 2084 2085 2086 2087 2088 2089 2090 2091 2092 2093 2094 2095 2096 2097 2098 2099 2100 2101 2102 2103 2104 2105 2106 2107 2108 2109 2110 2111 2112 2113 2114 2115 2116 2117 2118 2119 2120 2121 2122 2123 2124 2125 2126 2127 2128 2129 2130 2131 2132 2133 2134 2135 2136 2137 2138 2139 2140 2141 2142 2143 2144 2145 2146 2147 2148 2149 2150 2151 2152 2153 2154 2155 2156 2157 2158 2159 2160 2161 2162 2163 2164 2165 2166 2167 2168 2169 2170 2171 2172 2173 2174 2175 2176 2177 2178 2179 2180 2181 2182 2183 2184 2185 2186 2187 2188 2189 2190 2191 2192 2193 2194 2195 2196 2197 2198 2199 2200 2201 2202 2203 2204 2205 2206 2207 2208 2209 2210 2211 2212 2213 2214 2215 2216 2217 2218 2219 2220 2221 2222 2223 2224 2225 2226 2227 2228 2229 2230 2231 2232 2233 2234 2235 2236 2237 2238 2239 2240 2241 2242 2243 2244 2245 2246 2247 2248 2249 2250 2251 2252 2253 2254 2255 2256 2257 2258 2259 2260 2261 2262 2263 2264 2265 2266 2267 2268 2269 2270 2271 2272 2273 2274 2275 2276 2277 2278 2279 2280 2281 2282 2283 2284 2285 2286 2287 2288 2289 2290 2291 2292 2293 2294 2295 2296 2297 2298 2299 2300 2301 2302 2303 2304 2305 2306 2307 2308 2309 2310 2311 2312 2313 2314 2315 2316 2317 2318 2319 2320 2321 2322 2323 2324 2325 2326 2327 2328 2329 2330 2331 2332 2333 2334 2335 2336 2337 2338 2339 2340 2341 2342 2343 2344 2345 2346 2347 2348 2349 2350 2351 2352 2353 2354 2355 2356 2357 2358 2359 2360 2361 2362 2363 2364 2365 2366 2367 2368 2369 2370 2371 2372 2373 2374 2375 2376 2377 2378 2379 2380 2381 2382 2383 2384 2385 2386 2387 2388 2389 2390 2391 2392 2393 2394 2395 2396 2397 2398 2399 2400 2401 2402 2403 2404 2405 2406 2407 2408 2409 2410 2411 2412 2413 2414 2415 2416 2417 2418 2419 2420 2421 2422 2423 2424 2425 2426 2427 2428 2429 2430 2431 2432 2433 2434 2435 2436 2437 2438 2439 2440 2441 2442 2443 2444 2445 2446 2447 2448 2449 2450 2451 2452 2453 2454 2455 2456 2457 2458 2459 2460 2461 2462 2463 2464 2465 2466 2467 2468 2469 2470 2471 2472 2473 2474 2475 2476 2477 2478 2479 2480 2481 2482 2483 2484 2485 2486 2487 2488 2489 2490 2491 2492 2493 2494 2495 2496 2497 2498 2499 2500 2501 2502 2503 2504 2505 2506 2507 2508 2509 2510 2511 2512 2513 2514 2515 2516 2517 2518 2519 2520 2521 2522 2523 2524 2525 2526 2527 2528 2529 2530 2531 2532 2533 2534 2535 2536 2537 2538 2539 2540 2541 2542 2543 2544 2545 2546 2547 2548 2549 2550 2551 2552 2553 2554 2555 2556 2557 2558 2559 2560 2561 2562 2563 2564 2565 2566 2567 2568 2569 2570 2571 2572 2573 2574 2575 2576 2577 2578 2579 2580 2581 2582 2583 2584 2585 2586 2587 2588 2589 2590 2591 2592 2593 2594 2595 2596 2597 2598 2599 2600 2601 2602 2603 2604 2605 2606 2607 2608 2609 2610 2611 2612 2613 2614 2615 2616 2617 2618 2619 2620 2621 2622 2623 2624 2625 2626 2627 2628 2629 2630 2631 2632 2633 2634 2635 2636 2637 2638 2639 2640 2641 2642 2643 2644 2645 2646 2647 2648 2649 2650 2651 2652 2653 2654 2655 2656 2657 2658 2659 2660 2661 2662 2663 2664 2665 2666 2667 2668 2669 2670 2671 2672 2673 2674 2675 2676 2677 2678 2679 2680 2681 2682 2683 2684 2685 2686 2687 2688 2689 2690 2691 2692 2693 2694 2695 2696 2697 2698 2699 2700 2701 2702 2703 2704 2705 2706 2707 2708 2709 2710 2711 2712 2713 2714 2715 2716 2717 2718 2719 2720 2721 2722 2723 2724 2725 2726 2727 2728 2729 2730 2731 2732 2733 2734 2735 2736 2737 2738 2739 2740 2741 2742 2743 2744 2745 2746 2747 2748 2749 2750 2751 2752 2753 2754 2755 2756 2757 2758 2759 2760 2761 2762 2763 2764 2765 2766 2767 2768 2769 2770 2771 2772 2773 2774 2775 2776 2777 2778 2779 2780 2781 2782 2783 2784 2785 2786 2787 2788 2789 2790 2791 2792 2793 2794 2795 2796 2797 2798 2799 2800 2801 2802 2803 2804 2805 2806 2807 2808 2809 2810 2811 2812 2813 2814 2815 2816 2817 2

FIG. 4

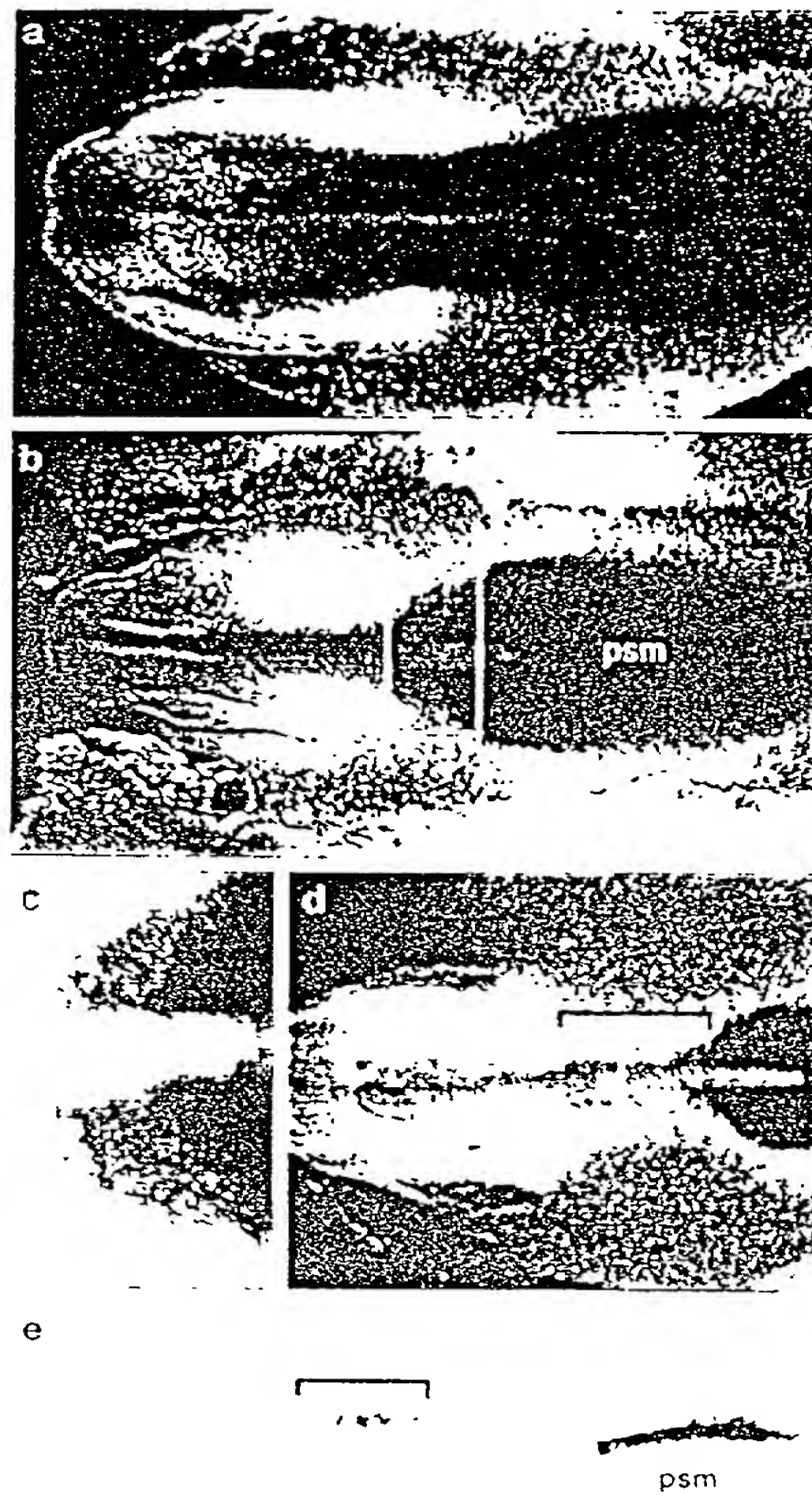


FIG. 5

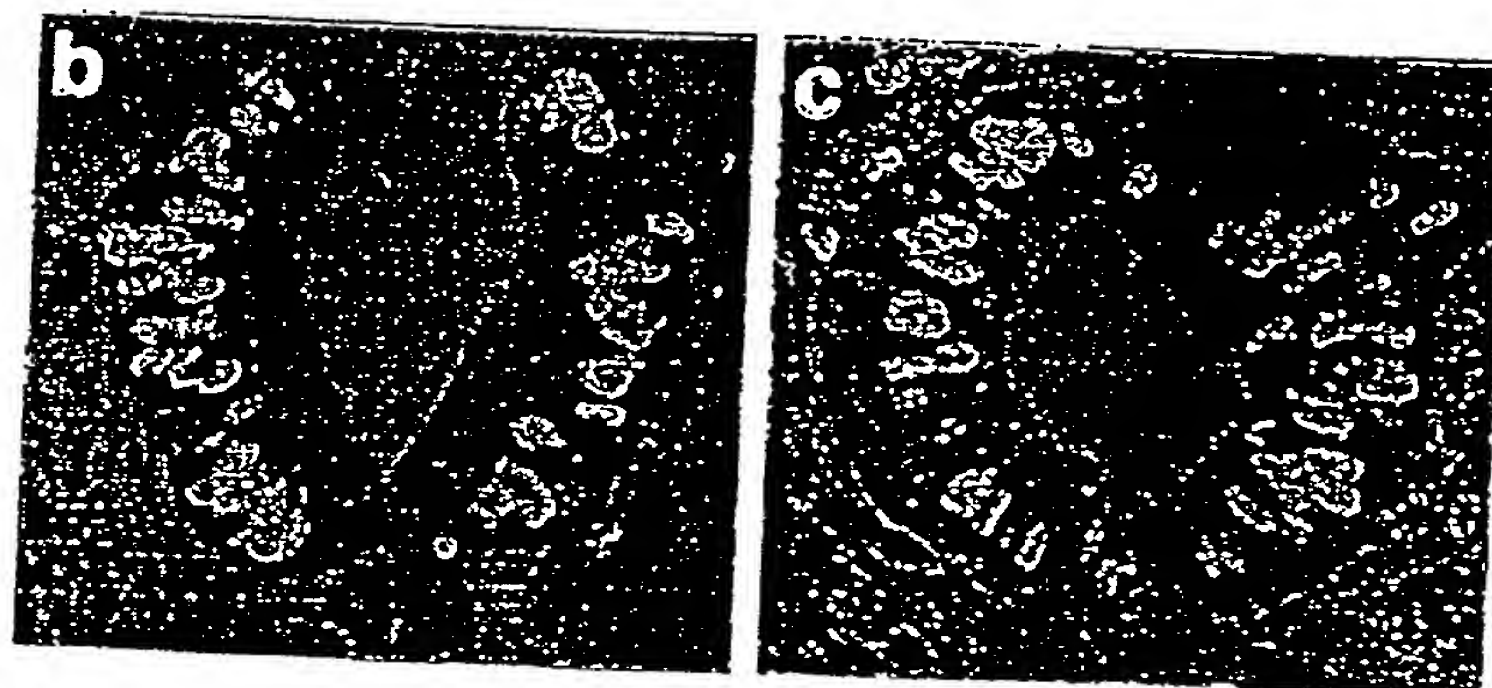


FIG. 6B

FIG. 6C

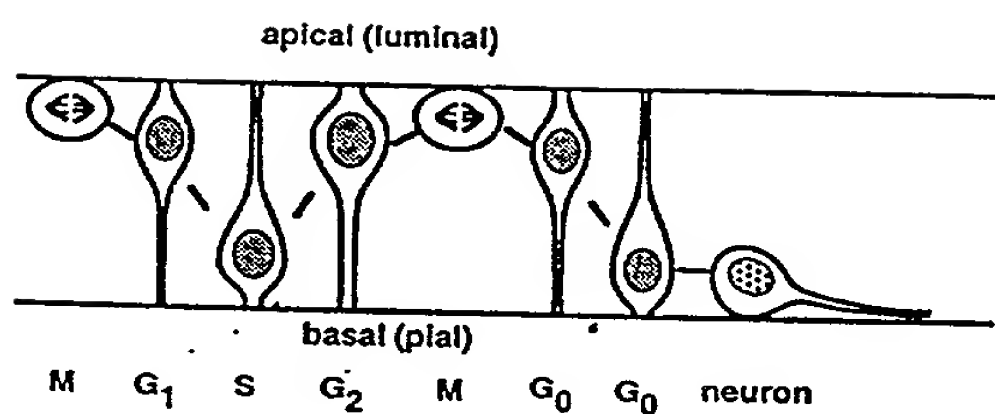


FIG. 6A

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CTGCAGGAAT	TCSMYCGCAT	GCTCCCCGGCC	GCCATGGGCC	GTCGGAGCGC	GCTAGCCCTT	60
GCCGTGGTCT	CTGCCCTGCT	GTGCCAGGTC	TGGAGCTCCG	GCGTATTTGA	GCTGAAGCTG	120
CAGGAGTTCG	TCAACAAGAA	GGGGCTGCTG	GGGAACCGCA	ACTGCTGCCG	CGGGGGCTCT	180
GGCCCCGCTT	GCGCCTGCAG	GACCTTCTTT	CGCGTATGCC	TCAAGCACTA	CCAGGCCAGC	240
GTGTCACCGG	AGCCACCCTG	CACCTACGGC	AGTGCCGTCA	CGCCAGTGCT	GGGTGTCGAC	300
TCCTTCAGCC	TGCCTGATGG	CGCAGGCATC	GACCCCGCCT	TCAGCAACCC	CATCCGATTC	360
CCCTTCGGCT	TCACCTGGCC	AGGTACCTTC	TCTCTGATCA	TTGAAGCCCT	CCATACAGAC	420
TCTCCCGATG	ACCTCGCAAC	AGAAAACCCA	GAAAGACTCA	TCAGCCGCCT	GACCACACAG	480
AGGCACCTCA	CTGTGGGAGA	AGAATGGTCT	CAGGACCTTC	ACAGTAGCGG	CCGCACAGAC	540
CTCCGGTACT	CTTACCGGTT	TGTGTGTGAC	GAGCACTACT	ACGGAGAAGG	TTGCTCTGTG	600
TTCTGCCGAC	CTCGGGATGA	CGCCTTTGGC	CACTTCACCT	GCGGGGACAG	AGGGGAGAAG	660
ATGTGCGACC	CTGGCTGGAA	AGGCCAGTAC	TGCACTGACC	CAATCTGTCT	GCCAGGGTGT	720
GATGACCAAC	ATGGATACTG	TGACAAACCA	GGGGAGTGCA	AGTGCAGAGT	TGGCTGGCAG	780
GGCCGCTACT	GCGATGAGTG	CATCCGATAC	CCAGGTTGTC	TCCATGGCAC	CTGCCAGCAA	840
CCCTGGCAGT	GTAAGTGCCA	GGAAGGCTGG	GGGGGCCCTT	TCTGCAACCA	AGACCTGAAC	900
TACTGTACTC	ACCATAAGCC	GTGCAGGAAT	GGAGCCACCT	GCACCAACAC	GGGCCAGGGG	960
AGCTACACAT	GTTCCCTGCCG	ACCTGGGTAT	ACAGGTGCCA	ACTGTGAGCT	GGAAGTAGAT	1020
GAGTGTGCTC	CTAGCCCCTG	CAAGAACGGA	GCGAGCTGCA	CGGACCTTGA	GGACAGCTTC	1080
TCTTGCACCT	GCCCTCCCCG	CTTCTATGGC	AAGGTCTGTG	AGCTGAGCGC	CATGACCTGT	1140
GCAGATGGCC	CTTGCTTCAA	TGGAGGACGA	TGTTTCAGATA	ACCCTGACGG	AGGCTACACC	1200
TGCCATTGCC	CCTTGGGCTT	CTCTGGCTTC	AACTGTGAGA	AGAAGATGGA	TCTCTGCGGC	1260
TCTTCCCCTT	GTTCTAACGG	TGCCAAGTGT	GTGGACCTCG	GCAACTCTTA	CCTGTGCCGG	1320
TGCCAGGCTG	GCTTCTCCGG	GAGGTACTGC	GAGGACAATG	TGGATGACTG	TGCCTCCTCC	1380
CCGTGTGCAA	ATGGGGGCAC	CTGCCGGGAC	AGTGTGAACG	ACTTCTCCTG	TACCTGCCCA	1440
CCTGGCTACA	CGGGCAAGAA	CTGCAGCGCC	CCTGTCAGCA	GGTGTGAGCA	TGCACCCTGC	1500
CATAATGGGG	CCACCTGCCA	CCAGAGGGGC	CAGCGCTACA	TGTGTGAGTG	CGCCCAGGGC	1560
TATGGCGGCC	CCAAGTGCCA	GTTTCTGCTC	CCTGAGCCAC	CACCAGGGCC	CATGGTGGTG	1620
GACCTCAGTG	AGAGGCATAT	GGAGAGCCAG	GGCGGGCCCT	TCCCCTGGGT	GGCCGTGTGT	1680
GCCGGGGTGG	TGCTTGTCTT	CCTGCTGCTG	CTGGGCTGTG	CTGCTGTGGT	GGTCTGCGTC	1740
CGGCTGAAGC	TACAGAAACA	CCAGCCTCCA	CCTGAACCTT	GTGGGGGAGA	GACAGAAACC	1800
ATGAACAACC	TAGCCAATTG	CCAGCGCGAG	AAGGACGTTT	CTGTTAGCAT	CATTGGGGCT	1860
ACCCAGATCA	AGAACACCAA	CAAGAAGGCG	GACTTTCACG	GGGACCATGG	AGCCGAGAAG	1920
AGCAGCTTTA	AGGTCCGATA	CCCCACTGTG	GACTATAACC	TCGTTTCGAGA	CCTCAAGGGA	1980
GATGAAGCCA	CGGTCAGGGA	TACACACAGC	AAACGTGACA	CCAAGTGCCA	GTCACAGAGC	2040
TCTGCAGGAG	AAGAGAAGAT	CGCCCCAACA	CTTAGGGGTG	GGGAGATTCC	TGACAGAAAA	2100
AGGCCAGAGT	CTGTCTACTC	TACTTCAAAG	GACACCAAGT	ACCAGTCGGT	GTATGTTCTG	2160
TCTGCAGAAA	AGGATGAGTG	TGTTATAGCG	ACTGAGGTGT	AAGATGGAAG	CGATGTGGCA	2220
AAATTCCCCT	TTCTCTTAAA	TAAAATTCCA	AGGATATAGC	CCCGATGAAT	GCTGCTGAGA	2280
GAGGAAGGGA	GAGGAAACCC	AGGGACTGCT	GCTGAGAACC	AGGTTTCAGGC	GAACGTGGTT	2340
CTCTCAGAGT	TAGCAGAGGC	GCCCGACACT	GCCAGCCTAG	GCTTTGGCTG	CCGCTGGACT	2400
GCCTGCTGGT	TGTTCCCAT	GCACTATGGA	CAGTTGCTTT	GAAGAGTATA	TATTTAAATG	2460
GACGAGTGAC	TTGATTCATA	TAGGAAGCAC	GCACTGCCCA	CACGTCTATC	TTGGATTACT	2520
ATGAGCCAGT	CTTTCCTTGA	ACTAGAAACA	CAACTGCCTT	TATTGTCCTT	TTTGATACTG	2580
AGATGTGTTT	TTTTTTTTTTC	CTAGACGGGA	AAAAGAAAAC	GTGTGTTATT	TTTTTTGGGA	2640
TTTGTAAGAA	TATTTTTCAT	GATTATGGGA	GAGCTCCCAA	CGCGTTGGAG	GT	2692

FIG. 7

MGRRSALALA	VVSALLCQVW	SSGVFELKLQ	EFVNKKGLLG	NRNCCRGGS	50
PPCACRTFFR	VCLKHYQASV	SPEPPCTYGS	AVTPVLGVDS	FSLPDGAGID	100
PAFSNPIRFP	FGFTWPGTFS	LIIEALHTDS	PDDLATENPE	RLISRLTTQR	150
HLTVGEEWSQ	DLHSSGRTDL	RYSYRFVCDE	HYYGEGCSVF	CRPRDDAFGH	200
FTCGDRGEKM	CDPGWKGYC	TDPICLPGCD	DQHGCDKPG	ECKCRVGWQG	250
RYCDECIRYP	GCLHGTCQQP	WQCNCQEGWG	GLFCNQDLNY	CTHHKPCRNG	300
ATCTNTGQGS	YTCSCRPGYT	GANCELEVDE	CAPSPCKNGA	SCTDLED\$FS	350
CTCPPGFYGK	VCELSAMTCA	DGPCFNNGRC	SDNPDGGYTC	HCPLGFSGFN	400
CEKKMDLCGS	SPCSNGAKCV	DLGNSYLCRC	QAGFSGRYCE	DNVDDCASSP	450
CANGGTCRDS	VNDFSCTCPP	GYTGKNCSAP	VSRCEHAPCH	NGATCHQRGQ	500
RYMCECAQGY	GGPNCQFLLP	EPPPGPMVVD	LSERHMESQG	GPFPWVAVCA	550
GVVLVLLLLL	GCAAVVVCVR	LKLQKHQPPP	EPCGGETETM	NNLANCQREK	600
DVSVSIIGAT	QIKNTNKKAD	FHGDHGAES	SFKVRYPTVD	YNLVRDLKGD	650
EATVRDTHSK	RDTKCQSQSS	AGEEKIAPTL	RGGEIPDRKR	PESVYSTSKD	700
TKYQSVYVLS	AEKDECVIAT	EV			722

Chick DELTA	YGLSFLDITAYLLSALLGRGQVDSGVFELKLOEFVAKKGLILNRRNGCRGG	50
Mouse Delta.pep	YGLSFLDITAYLLSALLGRGQVDSGVFELKLOEFVAKKGLILNRRNGCRGG	48
Consensus	YGLSFLDITAYLLSALLGRGQVDSGVFELKLOEFVAKKGLILNRRNGCRGG	50
Chick DELTA	GPGGAGQQQDGGKREERVCLKHVOASVSPEPPCTVGSALIPVILGNSFS	100
Mouse Delta.pep	---SGP---PGACRTEFRVCLKHVOASVSPEPPCTVGSALIPVILGNSFS	93
Consensus	...S....G...E...REERVCLKHVOASVSPEPPCTVGSALIPVILGNSFS	100
Chick DELTA	PDGAGGADPAFSENIREPEGFETWPGTFSITTEALHTDSDPDLTENPERLI	150
Mouse Delta.pep	PDGAG-IDPAFSENIREPEGFETWPGTFSITTEALHTDSDPDLTENPERLI	142
Consensus	PDGAG..DPAFSENIREPEGFETWPGTFSITTEALHTDSDPDLTENPERLI	150
Chick DELTA	TSRLTORHLVAGEEWSODLHSSGRIDLVSYREVCDEHYVGECCSVGR	200
Mouse Delta.pep	TSRLTORHLVAGEEWSODLHSSGRIDLVSYREVCDEHYVGECCSVGR	192
Consensus	TSRLTORHLVAGEEWSODLHSSGRIDLVSYREVCDEHYVGECCSVGR	200
Chick DELTA	PRDDPGHETCGRGEKVDTPGWKGOYCTPICHPCGDHGHGSDKPGEC	250
Mouse Delta.pep	PRDDPGHETCGRGEKVDTPGWKGOYCTPICHPCGDHGHGSDKPGEC	242
Consensus	PRDDPGHETCGRGEKVDTPGWKGOYCTPICHPCGDHGHGSDKPGEC	250
Chick DELTA	KCRVGNQGRY CDECI RYPCG LHGTCCQPPWQ CNCQEGWGGL FCNODLNYCT	300
Mouse Delta.pep	KCRVGNQGRY CDECI RYPCG LHGTCCQPPWQ CNCQEGWGGL FCNODLNYCT	292
Consensus	KCRVGNQGRY CDECI RYPCG LHGTCCQPPWQ CNCQEGWGGL FCNODLNYCT	300
Chick DELTA	HHKPCNGAT CTNTGQGSYT CSCREGYTGS SGELEINEC ANPCKNGSC	350
Mouse Delta.pep	HHKPCNGAT CTNTGQGSYT CSCREGYTGA NGELLEDECA PSPCKNGSC	342
Consensus	HHKPCNGAT CTNTGQGSYT CSCREGYTGS SGELEINEC ANPCKNGSC	350
Chick DELTA	TDLENSCTCPPGFYGKCELSAMTCADGPCFNGGRCIDNPDGGYSCRC	400
Mouse Delta.pep	TDLENSCTCPPGFYGKCELSAMTCADGPCFNGGRCIDNPDGGYSCRC	392
Consensus	TDLENSCTCPPGFYGKCELSAMTCADGPCFNGGRCIDNPDGGYSCRC	400
Chick DELTA	PLGSGFNCEKKIDCTSSP CNGACVVDLGNSYLCQOAGFTGRHCDON	450
Mouse Delta.pep	PLGSGFNCEKKIDCTSSP CNGACVVDLGNSYLCQOAGFTGRHCDON	442
Consensus	PLGSGFNCEKKIDCTSSP CNGACVVDLGNSYLCQOAGFTGRHCDON	450
Chick DELTA	VDDCASFCV NGGTCDDVN D SGTCPPGY NGKNCSEVVS RCEHPCCHNG	500
Mouse Delta.pep	VDDCASFCV NGGTCDDVN D SGTCPPGY NGKNCSEVVS RCEHPCCHNG	492
Consensus	VDDCASFCV NGGTCDDVN D SGTCPPGY NGKNCSEVVS RCEHPCCHNG	500
Chick DELTA	ATCHERSNRYCECAGYGGNCOFLLEPPDGEVINDFT EKYTESQNSQ	550
Mouse Delta.pep	ATCHERSNRYCECAGYGGNCOFLLEPPDGEVINDFT ERYHESQGGP	542
Consensus	ATCHERSNRYCECAGYGGNCOFLLEPPDGEVINDFT E...E...D...	550
Chick DELTA	EPWAVCAGITLVLLLLGC AAIVCVRLKDKRHHQPEA ERSETETMNN	600
Mouse Delta.pep	EPWAVCAGITLVLLLLGC AAIVCVRLKDKRHHQPEA ERSETETMNN	592
Consensus	EPWAVCAGITLVLLLLGC AAIVCVRLKDK...PEA ERSETETMNN	600
Chick DELTA	LANCOREKDISSVIGATQIKNTNKKVDFHSDN-SKNGY KVRYPVDYN	649
Mouse Delta.pep	LANCOREKDISSVIGATQIKNTNKKVDFHSDN-SKNGY KVRYPVDYN	642
Consensus	LANCOREKDISSVIGATQIKNTNKKVDFHSDN-SKNGY KVRYPVDYN	650
Chick DELTA	LVHEKNE-SVKEERKCEAKCETYDSEA EERSAVOLKS SGTSEKRPD	698
Mouse Delta.pep	LVHEKNE-SVKEERKCEAKCETYDSEA EERSAVOLKS SGTSEKRPD	692
Consensus	LVHEKNE-SVKEERKCEAKCETYDSEA EERSAVOLKS SGTSEKRPD	700
Chick DELTA	SVYSTSKDTKYQSVYVSEKDECATEV	728
Mouse Delta.pep	SVYSTSKDTKYQSVYVSEKDECATEV	722
Consensus	SVYSTSKDTKYQSVYVSEKDECATEV	730

FIG. 9

10	20	30	40	50	60
TACGATGAAY	AACCTGGCGA	ACTGCCAGCG	TGAGAAGGAC	ATCTCAGTCA	GCATCATCGG
Y D E	X P G E	L P A	* E G	H L S Q	H H R>
T M N	N L A	N C Q R	E K D	I S V	S I I G>
R * X	T W R	T A S	V R R T	S Q S	A S S>
70	80	90	100	110	120
GGCYACGTCA	GATCARGAAC	ACCAACAAGA	AGGCGGACTT	YMCASCGGGG	GACCASAGCG
G X V	R S X T	P T R	R R T	X X R G	T X A>
A T S	D Q E	H Q Q E	G G L	X X G	G P X R>
G X R Q	I X N	T N K	K A D F	X X G	D X S>
130	140	150	160	170	180
TCCGACAAGA	ATGGMTTTC	AGGCCCGCTA	CCCCAGCGTG	GACTATAACT	CGTGCAGGAC
S D K	N G F Q	G P L	P Q R	G L * L	V Q D>
P T R	M X F	K A R Y	P S V	D Y N	S C R T>
V R Q E	W X S	R P A	T P A W	T I T	R A G>
190	200	210	220	230	240
CTCAAGGGTG	ACGACACCGC	CGTCAGGACG	TCGCACAGCA	AGCGTGACAC	CAAGTGCCAG
L K G	D D T A	V R T	S H S	K R D T	K C Q>
S R V	T T P	P S G R	R T A	S V T	P S A S>
P Q G *	R H R	R Q D	V A Q Q	A * H	Q V P>
250	260	270	280	290	300
TCCCCAGGCT	CCTCAGGGAG	GAGAAGGGGA	CCCCGACCAC	ACTCAGGGGK	TGCGTGCTGC
S P G	S S G R	R R G	P R P	H S G X	A C C>
P Q A	P Q G	G E G D	P D H	T Q G	X R A A>
V P R L	L R E	E K G	T P T T	L R G	C V L>
310	320	330	340	350	360
GGGCCGGGCT	CAGGAGGGGG	TACCTGGGGG	GTGTCTTCCT	GGAACCACTG	CTCCGTTTCT
G P G	S G G G	T W G	V S S	W N H C	S V S>
G R A	Q E G	V P G G	C L P	G T T	A P F L>
R A G L	R R G	Y L G	G V F L	E P L	L R F>

```

      370      380      390      400      410      420
          *          *          *          *
CTTCCCAAAT GTTCTCATGC ATTCATTGTG GATTTTCTCT ATTTTCCTTT TAGTGGAGAA
L P K C S H A F I V D F L Y F P F S G E>
F P N V L M H S L W I F S I F L L V E K>
S S Q M F S C I H C G F S L F S F * W R>

      430      440      450      460      470      480
          *          *          *          *
GCATCTGAAA GAAAAAGGCC GGACTCGGGC TGTTCAACTT CAAAAGACAC CAAGTACCAG
A S E R K R P D S G C S T S K D T K Y Q>
H L K E K G R T R A V Q L Q K T P S T S>
S I * K K K A G L G L F N F K R H Q V P>

      490      500      510      520
          *          *
TCGGTGTACG TCATATCCGA GGAGAAGGAC GAGTGCGTCA TCGCA
S V Y V I S E E K D E C V I A>
R C T S Y P R R R T S A S S>
V G V R H I R G E G R V R H R>

```

FIG. 10 (cont'd)

10	20	30	40	50	60
* *	* *	* *	* *	* *	* *
CATTGGGTAC	GGGCCCCCCT	CGAGGTCGAC	GGTATCGATA	AGCTTGATAT	CGAATTCCGG
70	80	90	100	110	120
* *	* *	* *	* *	* *	* *
CTTCACCTGG	CCGGGCACCT	TCTCTCTGAT	TATTGAAGCT	CTCCACACAG	ATTCTCCTGA
130	140	150	160	170	180
* *	* *	* *	* *	* *	* *
TGACCTCGCA	ACAGAAAACC	CAGAAAGACT	CATCAGCCGC	CTGGCCACCC	AGAGGCACCT
190	200	210	220	230	240
* *	* *	* *	* *	* *	* *
GACGGTGGGC	CAGGAGTGGT	CCCAGGACCT	GCACAGCAGC	GGCCGCACGG	ACCTCAAGTA
250	260	270	280	290	300
* *	* *	* *	* *	* *	* *
CTCCTACCGC	TTCGTGTGTC	ACGAACACTA	CTACGGAGAG	GGCTGCTCCG	TTTCTOCCG
310	320	330	340	350	360
* *	* *	* *	* *	* *	* *
TCCCCGGGAC	GATGCCTTCG	GCCACTTCAC	CTGTGGGGAG	CGTGGGGAGA	AAGTGTGCAA
370	380	390	400	410	420
* *	* *	* *	* *	* *	* *
CCCTGGCTGG	AAAGGGCCCT	ACTGCACAGA	GCCGATCTGC	CTGCCTGGAT	GTGATGAGCA
430	440	450	460	470	480
* *	* *	* *	* *	* *	* *
GCATGGATTT	TGTGACAAAC	CACCGGAATC	CAAGTGCAGA	GTTGGGCTGGC	AGGGCCGGTA
490	500	510	520	530	540
* *	* *	* *	* *	* *	* *
CTGTGACGAG	TGTATCCGCT	ATCCAGGCTG	TCTCCATGGC	ACCTGCCAGC	AGCCCTGGCA
550	560	570	580	590	600
* *	* *	* *	* *	* *	* *
GTGCAACTGC	CAGGAAGGNT	GGGGGOUUCT	TTTCTGCAAC	CAGGACCTGA	ACTACTGCAC
610	620	630	640	650	660
* *	* *	* *	* *	* *	* *
ACACCATAAG	CCCTGCAAGA	ATGGAGCCAC	CTGCAACAAA	CACGGGCCAG	GGGGAGCTAC
670	680	690	700	710	720
* *	* *	* *	* *	* *	* *
ACTTGGTCCT	TGGCCGGNCT	GGGGTACANA	GGGTGCCACC	TGCGAAGCTT	GGGGATTGGA
730	740	750	760	770	780
* *	* *	* *	* *	* *	* *
CGAGTTGTTG	ACCCCAGCCC	TTGGTAAGAA	CGGAGGGAGC	TGACGGATTC	TTCCGAGAAC
790	800	810	820	830	840
* *	* *	* *	* *	* *	* *
AGCTACTCCT	GTACCTGCCC	ACCCGGCTTC	TACGUCAAAA	TCTGTGANTT	GAGTGCCATG
850	860	870	880	890	900
* *	* *	* *	* *	* *	* *
ACCTGTGCGG	ACGGCCCTTG	CTTTAACGGG	GGTCGGTGCT	CAGACAGCCC	CGATGGAGGG

FIG. 12A

910 920 930 940 950 960
* * * * *
TACAGCTGCC GCIGCCCCGT GGGCTACTCC GGCTTCAACT GTGAGAAGAA AATTGACTAC
970 980 990 1000 1010 1020
* * * * *
TGCAGCTCTT CACCCTGTTC TAATGGTCCC AAGTGTGTGG ACCTCGGTGA TGCCTACCTG
1030 1040 1050 1060 1070 1080
* * * * *
TGCCGCTGCC AGGCCGGCTT CTCGGGGAGG CACTGTGACG ACAACGTGGA CGACTGCGCC
1090 1100 1110 1120 1130 1140
* * * * *
TCCTCCCCGT GCGCCAACGG GGGCACCTGC CGGGATGGCG TGAACGACTT CTCCTGCACC
1150 1160 1170 1180 1190 1200
* * * * *
TGCCCGCCIG GCTACACGGG CAGGAACCTG AGTGCCCCCG CCAGCACGTG CGAGCACGCA
1210 1220 1230 1240 1250 1260
* * * * *
CCCTGCCACA ATGGGGCCAC CTGCCACGAG AGGGGCCACC GCTATNTGTG CGAGTGTGCC
1270 1280 1290 1300 1310 1320
* * * * *
CGAAGCTACG GGGGTCCCAA CTUCCANTTC CTGCTCCCCG AAACIGCCCC CCCGGCCCCA
1330 1340 1350 1360 1370 1380
* * * * *
CGGTGGTGGA AACGCCCTA AAAAAACCTA AAAGGGCCGG GGGGGGCCCA TCCCTTGGT
1390 1400 1410 1420 1430 1440
* * * * *
GGACGTGTGC GCCGGGGTCA TCCGTGTCT CATGCTGCTG CTGGGCTGTG CCGCTGTGGT
1450 1460 1470 1480 1490 1500
* * * * *
GGTCTGCGTC CGGCTGAGGC TGCAGAAGCA CCGGCCCCCA CCGACCCCT GNCGGGGGGA
1510 1520 1530 1540 1550 1560
* * * * *
GACGGAGACC ATGAACAACC TGGNCAACTG CCAGCGTGAG AAGGACATCT CAGTCAGCAT
1570 1580 1590 1600 1610 1620
* * * * *
CATCGGGGNC ACGCAGATCA AGAACACCAA CAAGAAGGCG GACTTCCACG GGGACCACAG
1630 1640 1650 1660 1670 1680
* * * * *
NGCCGACAAG AATGGCTTCA AGGCCCGCTA CCCAGNGGTG GACTATAACC TCGTGCAGGA
1690 1700 1710 1720 1730 1740
* * * * *
CCICAAGGGT GACGACACCG CCGTCAGCOA CGGCGACAGC AAGCGTGACA CCAAGTGNCA
1750 1760 1770 1780 1790 1800
* * * * *
GCCCCAGGGC TCCTCAGGGG AGGAQAAGGG GACCCCCGAC CCACACTCAG GGGGTGGAGG
1810 1820 1830 1840 1850 1860
* * * * *

FIG. 12A (cont'd)

AAGCATCTTG AAAGAAAAAG GCCGGACTTC GGGCTTG'ITC AACTTTCAAA AGACAANCAA
 * 1870 * 1880 * 1890 * 1900 * 1910 * 1920 *
 NGTACAAGTC GGTG'INCGTC ATTCCGNAG GAGGAAGGNT GAC'IGUUTCA TAGGAANTTG
 * 1930 * 1940 * 1950 * 1960 * 1970 * 1980 *
 AGGTNG'IAAA NTCGNAGTTG ANN'IGCAAA GNNNTCCCCG GATTCGNTT TCAAAGTTTT

T

FIG. 12A (cont'd)

002394-034504
 002394-034504

10 20 30 40 50 60 a.a. no.
 * * * * *
 CATTGGGTAC GGGCCCCCT CGAGGTCGAC GGTATCGATA AGCTTGATAT CGAATTCCGG
 H W V R A P L E V D G I D K L D I E F R> 20
 I G Y G P P S R S T V S I S L I S N S [G] 20
 L G T G P P R G R R Y R * A * Y R I P> 19

70 80 90 100 110 120
 * * * * *
 CTTCACCTGG CCGGGCACCT TCTCTCTGAT TATTGAAGCT CTCCACACAG ATTCTCCTGA
 L H L A G H L L S D Y * S S P H R F S *> 40
 F T W P G T F S L I I E A L H T D S P D> 40
 A S P G R A P S L * L L K I S T Q I L L> 39

130 140 150 160 170 180
 * * * * *
 TGACCTCGCA ACAGAAAACC CAGAAAGACT CATCAGCCGC CTGGCCACCC AGAGGCACCT
 * P R N R K P R K T H Q P P G H P E A P> 60
 D L A T E N P E R L I S R L A T Q R H L> 60
 M T S Q Q K T Q K D S S A A W P P R - G T> 59

190 200 210 220 230 240
 * * * * *
 GACGGTGGGC GAGGAGTGGT CCCAGGACCT GCACAGCAGC GGCCGCACGG ACCTCAAGTA
 D G G R G V V P G P A Q Q R P H G P Q V> 80
 T V G E E W S Q D L H S S G R T D L K Y> 80
 * R W A R S G P R T C T A A A A R T S S> 79

250 260 270 280 290 300
 * * * * *
 CTCCTACCGC TTCGTGTTGT ACGAACACTA CTACGGAGAG GGCTGCTCCG TTTCTGCCG
 L L P L R V * R T L L R R G L L R F L P> 100
 S Y R F V C D E H Y Y G E G C S V F C R> 100
 T P T A S C V T N T T T E R A A P F S A> 99

310 320 330 340 350 360
 * * * * *
 TCCCCGGGAC GATGCCTTCG GCCACTTCAC CTCTGGGGAG CGTGGGGAGA AAGTGTGCAA
 S P G R C L R P L H L W G A W G E S V Q> 120
 P R D D A F G H F T C G E R G E K V C N> 120
 V P G T M P S A T S P V C S V G R K C A> 119

370 380 390 400 410 420
 * * * * *
 CCCTGGCTGG AAAGGGCCCT ACTCCACAGA GCCGATCTGC CTGCCTGGAT GTGATGAGCA
 P W L E R A L L H R A D L P A W M * * A> 140
 P G W K G P Y C T E F L C L P G C D E Q> 140
 T I A G K G P T A Q S R S A C L D V M S> 139

430 440 450 460 470 480
 * * * * *
 GCATGGATTT TGTGACAAAC CAGCCCAATG CAAGTGCAGA GTGGGCTGGC AGGGCCGGTA
 A W I L * Q T R G M Q V Q S G L A G P V> 160
 H G F C D K P G E C K C R V G W Q G R Y> 160
 S M D F V T N Q G N A S A E W A G R A G> 159

490 500 510 520 530 540
 * * * * *
 CTGTGACGAG TGTATCCGCT ATCCAGGCTG TCTCCATGGC ACCTGCCAGC AGCCCTGGCA
 L * R V Y P L S R L S P W H L P A A L A> 180

FIG. 12B

C D E C I R Y P G C L H G T C Q Q P W Q> 180
 T V T S V S A I Q A V S M A P A S S P Q> 179
 550 560 570 580 590 600
 * * * * *
 GIGCAACTGC CAGGAAGGNT GGGGGGGCCT TTTCTGCAAC CAGGACCTGA ACTACTGCAC
 V Q L P G R X G G P F L Q P G P E L L H> 200
 C N C Q E G W G G L F C N Q D L N Y C T> 200
 S A T A R K X G G A F S A T R T * T T A> 199
 610 620 630 640 650 660
 * * * * *
 ACACCATAAG CCCTGCAAGA ATCCAGCCAC CIGCAACAAA CACGGGCCAG GGGGAGCTAC
 T P * A L Q E W S H L Q Q T R A R G S Y> 220
 H H K P C K N G A T C N K H G P G G A T> 220
 H T I S P A R M E P P A T N T G Q G E L> 219
 670 680 690 700 710 720
 * * * * *
 ACTTGGTCTT TGGCCGGNCT GGGGTACANA GGGTGCCACC TGCGAAGCTT GGGGATTGGA
 T W S L A G L G Y X G C H L R S L G I G> 240
 L G L W P X W G T X G A T C E A W G L D> 240
 H L V F G R X C V X R V P P A K L G D W> 239
 730 740 750 760 770 780
 * * * * *
 CGACTTGTG ACCCCAGCCC TTGTAAGAA CCGAGGGAGC TTGACGGATC TTCGGAGAAC
 R V V D P S P W * E R R E L D G S S E N> 260
 E L L T P A L G K N G G S L T D L R R T> 260
 T S C * P Q P L V R T E O A * R I F G E> 259
 790 800 810 820 830 840
 * * * * *
 AGCTACTCCT GTACCTGCCC ACCCGGCTTC TACGGCAAAA TCIGTGAATT GAGTGCCATG
 S Y S C T C P P G F Y G K I C E L S A M> 280
 A T P V P A H P A S T A K S V N * V P *> 280
 Q L L L Y L P T R L L R Q N L * I E C H> 279
 850 860 870 880 890 900
 * * * * *
 ACCTGTGCGG ACGGCCCTTG CTTTAACGGG GGTGGTGCT CACACAGCCC CGATGGAGGG
 T C A D G P C F N G G R C S D S P D G G> 300
 P V R T A L A L T G V G A Q T A P M E G> 300
 D L C G R P L L * R G S V I R Q P R W R> 299
 910 920 930 940 950 960
 * * * * *
 TACAGCTGCC CCGCCCGT GGGCTACTCC GCGTCAACT GTGAGAAGAA AATTGACTAC
 Y S C R C P V G Y S G F N C E K K I D Y> 320
 T A A A A P W A T P A S T V R R K L T T> 320
 V Q L P L P R G L L R L Q L * E E N * I> 319
 970 980 990 1000 1010 1020
 * * * * *
 TGCAGCTCTT CACCCGTTC TAAAGGAGCC AAGTCTGTGG ACCTGGGTGA TGCCTACCTG
 C S S S P C S N G A K C V D L G D A Y L> 340
 A A L H P V L M V P S V W T S V M P T C> 340
 I Q L F T L F * W C Q V C G P R * C L P> 339
 1030 1040 1050 1060 1070 1080
 * * * * *
 TGCCGCTGCC AGGCCGGCTT CTCGGGGAGG CACTGTGACG ACAACGAGGA CGACTGCGCC

FIG. 12B (cont'd)

C R C Q A G F S G R H C D D N V D D C A> 360
 A A A R P A S R G G T V T T T W T T A P> 360
 V P L P G R L L C F A L * R Q R G R L R> 359
 1090 1100 1110 1120 1130 1140
 * * * * *
 TCCCTCCCGT GCGCCAACGG GGGCACCTGC CCGGATGGCG TGAACGACTT CTCCTGCACC
 S S P C A N G G T C R D G V N D F S C T> 380
 P P R A P T G A P A G M A * T T S P A P> 380
 L L P V R Q R G H L P G W R F R I L L H> 379
 1150 1160 1170 1180 1190 1200
 * * * * *
 TGCCCGCCTG GCTACACGGG CAGGAACCTGC AGTCCCCCGG CCAGCAGGTG CGAGCACGCA
 C P P G Y T G R N C S A P A S R C E H A> 400
 A R L A T R A G T A V P P P A G A S T H> 400
 L P A W L H G Q E L Q C P R Q Q V R A R> 399
 1210 1220 1230 1240 1250 1260
 * * * * *
 CCCTGCCACA ATGGGGCCAC CTGCCACGAG AGGGGCCACC GCTATCTGTG CGAGTGTGCC
 P C H N G A T C H F R G H R Y X C E C A> 420
 P A T M G P P A T R G A T A T C A S V P> 420
 T L P Q W G H L P R E G P P L F V R V C> 419
 1270 1280 1290 1300 1310 1320
 * * * * *
 CGAAGCTACG GGGGTCCCAA CTGCCATTC CTGCTCCCGG AAAGTCCCCC CCGGGCCCCA
 R S Y G G P N C X F L L P E T A P P A P> 440
 E A T G V P T A X S C S P K L P P R P H> 440
 P K L R G S Q L P X P A P R N C P P G P> 439
 1330 1340 1350 1360 1370 1380
 * * * * *
 CGGTGGTGG AACTCCCTA AAAAAACCTA AAAGGGCCGG GGGGGGCCCA TCCCCTTGGT
 R W W K L P * K N L K G P G G A H P L G> 460
 G G G N S P K K T * K G R G G P I P L V> 460
 T V V F T P L K K P K R A G G G P S P W> 459
 1390 1400 1410 1420 1430 1440
 * * * * *
 GGACGTGTGC GCCGGGTCA TCCCTGTCT CATGCTGTG CTGGGCTGTG CCGCTGTGGT
 G R V R R G H P C P H A A A G L C R C G> 480
 D V C A G V I L V L M L L L G C A A V V> 480
 W T C A P G S S L S S C C C W A V P L W> 479
 1450 1460 1470 1480 1490 1500
 * * * * *
 GGTCTGCGTC CCGCTGAGGC TGCAGAAGCA CCGGCCXCCA GCCGACCCCT GNCGGGGGGA
 G L R P A F A A E A P A P S R P L X G G> 500
 V C V R L R L Q K H R P P A D P X R G E> 500
 W S A S G * G C R S T G P Q P T P X G G> 499
 1510 1520 1530 1540 1550 1560
 * * * * *
 GACGGAGACC ATGAACAACC TGGNCAACIG CCAGCGTGAG AAGGACATCT CAGTCAGCAT
 D C D H E Q P G Q L P A * E G H L S Q H> 520
 T E T M N N L X N C Q R E K D I S V S I> 520
 R R R P * T T W X T A S V R R T S Q S A> 519
 1570 1580 1590 1600 1610 1620
 * * * * *

FIG. 12B (cont'd)

CATCGGGGNC ACGCAGATCA AGAACACCAA CAAGAAGGCG GACTTCCACG GGGACCACAG
 H R G H A D Q E H Q O E G G L P R G P Q> 540
 I G X T Q I K N T N K K A D F H G D H X> 540
 S S G X R R S R T P T R R R T S T Q T T> 539

1630 1640 1650 1660 1670 1680
 * * * * *
 NGCCGACAAG AATGGCTTCA AGGCCCGCTA CCCACNGGIG GACTATAACC TCGTGCAGGA
 X R Q E W L Q G P L P X G G L * P R A G> 560
 A D K N G F K A R Y P X V D Y N L V O D> 560
 X P T R M A S R P A T Q X W T I T S C R> 559

1690 1700 1710 1720 1730 1740
 * * * * *
 CCTCAAGGCT GACGACACCG CCGTCAGGGA CGCGCACAGC AAGCUTGACA CCAAGTGNCA
 P Q G * R H R R Q G R A Q Q A * H Q V X> 580
 L K G D D T A V R D A H S K R D T K X Q> 580
 T S R V T T P P S G T R T A S V T P S X> 579

1750 1760 1770 1780 1790 1800
 * * * * *
 GCCCCAGGGC TCCTCAGGGG AGGAGAAGGG GACCCCCGAC CCACACTCAG GGGGTGGAGG
 A P G L L R G G E Q D P R P T L R G W R> 600
 P O G S S G E E K G T P D P H S G G G G> 600
 S P R A P Q G R R R C P F T H T Q G V R> 599

1810 1820 1830 1840 1850 1860
 * * * * *
 AAGCATCTTG AAAGAAAAAG GCCGGACTTC GGGCTTGTTT AACTTTCAAA AGACAANCAA
 K H L E R K R P D F G L V Q L S K D X Q> 620
 S I L K E K G R T S G L F N F Q K T X X> 620
 E A S * K K K A G L R A C S T F K R Q X> 619

1870 1880 1890 1900 1910 1920
 * * * * *
 NGTACAAGTC GGTGTNCGTC ATTTCCGNAG GAGGAAGGNT GACTGCGTCA TAGGAANTIG
 X T S R C X S F P X E E G * L R H R X L> 640
 V Q V G V R H F R R R K X D C V T G X X> 640
 X Y K S V X V I S X G G R X T A S * E X> 639

1930 1940 1950 1960 1970 1980
 * * * * *
 AGGTNGTAAA NTGGNAGTIG ANNTTGGA AAA GNNNTCCCCO GATTCCCNIT TCAAAGTTT
 R X * X G S * X W K X X P G F R F Q S F> 660
 G X K X X V X X G K X S P D S X F K V F> 660
 E V V X W X L X L E X X P R I P X S K F> 659

T

FIG. 12B (cont'd)

Mouse Delta vs Partial Human Delta

Mouse Delta DNA	GTCCAGCGGT ACCATGGGCC GTCCGAGCGC GCTAGCCCTT GCCGTGGTCT	50
Human Delta	-----	
Consensus	GTCCAGCGGT ACCATGGGCC GTCCGAGCGC GCTAGCCCTT GCCGTGGTCT	50
Mouse Delta DNA	CTGCCCTGCT GTGCCAGGTC TGGAGCTCCG GCGTATTTGA GCTGAAGCTG	100
Human Delta	-----	
Consensus	CTGCCCTGCT GTGCCAGGTC TGGAGCTCCG GCGTATTTGA GCTGAAGCTG	100
Mouse Delta DNA	CAGGAGTTTG TCAACAAGAA GGGGCTGCTG GGGAACCGCA ACTGCTGCCG	150
Human Delta	-----	
Consensus	CAGGAGTTTG TCAACAAGAA GGGGCTGCTG GGGAACCGCA ACTGCTGCCG	150
Mouse Delta DNA	CGGGGGCTCT GGGCCGCTT GCGCTGCAG GACCTTCTTT CGCGTATGCC	200
Human Delta	-----	
Consensus	CGGGGGCTCT GGGCCGCTT GCGCTGCAG GACCTTCTTT CGCGTATGCC	200
Mouse Delta DNA	TCAACCACTA CCAGGCCAGC GTGTACCGG AGCCACCTG CACCTACGGC	250
Human Delta	-----	
Consensus	TCAACCACTA CCAGGCCAGC GTGTACCGG AGCCACCTG CACCTACGGC	250
Mouse Delta DNA	AGTGCTGTCA CGCCAGTGT GGGTGTGAC TCCTTCAGCC TGCCTGATCG	300
Human Delta	-----	5
Consensus	AGTGCTGTCA CGCCAGTGT GGGTGTGAC TCCTTCAGCC TGCCTGATCG	300
Mouse Delta DNA	CGGAGGATC GACCTC --G GGTTCGAA CCCCA--TCC GATTC--CCC	343
Human Delta	GGTACGGCC CCCCCGAGG TCGACGGAT CGATAAGCTT GATTCGAAT	55
Consensus	SGGAGGATC GACCTC --G GGTTCGAA CCCCA--TCC GATTC--CCC	350
Mouse Delta DNA	TCGGCTTCA CCTGGCCGG TACCTTCTCT CTGATATTG AAGCTCTCCA	393
Human Delta	TCGGCTTCA CCTGGCCGG TACCTTCTCT CTGATATTG AAGCTCTCCA	105
Consensus	TCGGCTTCA CCTGGCCGG TACCTTCTCT CTGATATTG AAGCTCTCCA	400
Mouse Delta DNA	TACAGATCT CCTGATGACC TCGCAACAGA AAACCCAGAA AGACTCATCA	443
Human Delta	CACAGATCT CCTGATGACC TCGCAACAGA AAACCCAGAA AGACTCATCA	155
Consensus	TACAGATCT CCTGATGACC TCGCAACAGA AAACCCAGAA AGACTCATCA	450
Mouse Delta DNA	GCCGCTGAC CACACAGAGG CACCTACCTG TGGGAGAGA TTGGTCTCAG	493
Human Delta	GCCGCTGAC CACACAGAGG CACCTACCTG TGGGAGAGA TTGGTCTCAG	205
Consensus	GCCGCTGAC CACACAGAGG CACCTACCTG TGGGAGAGA TTGGTCTCAG	500
Mouse Delta DNA	GACCTTCACA GTAGCGGCCG CACGACCTC CGGTACTCTT ACCGTTTGT	543
Human Delta	GACCTTCACA GTAGCGGCCG CACGACCTC AGGTACTCTT ACCGTTTGT	255
Consensus	GACCTTCACA GTAGCGGCCG CACGACCTC CGGTACTCTT ACCGTTTGT	550
Mouse Delta DNA	GTGTGACGAG CACTACTACG GAGAGGGTG CTCGTGTTTC TGCCGACCTC	593
Human Delta	GTGTGACGAA CACTACTACG GAGAGGGTG CTCGTGTTTC TGCCGACCTC	305
Consensus	GTGTGACGAR CACTACTACG GAGAGGGTG CTCGTGTTTC TGCCGACCTC	600
Mouse Delta DNA	GGGATGAGGC CTTTGGCCAC TTCACCTGG GGGAGAGGG GGAGAAATG	643
Human Delta	GGGATGAGGC CTTTGGCCAC TTCACCTGG GGGAGAGGG GGAGAAATG	355
Consensus	GGGATGAGGC CTTTGGCCAC TTCACCTGG GGGAGAGGG GGAGAAATG	650

FIG. 13

Mouse Delta vs Partial Human Delta

Mouse Delta DNA	TGCCACCCCTG GCTGGAAAGG	CACTACTGC ACAGACCA TCTGCTGCC	693
Human Delta	TGCCACCCCTC CCTGGAAAGG	CCCTACTGC ACAGACCA TCTGCTGCC	405
Consensus	TGCCACCCCTG GCTGGAAAGG	CACTACTGC ACAGACCA TCTGCTGCC	700
Mouse Delta DNA	AGGGTGTGAT GACCAACATG GATACGTGA CAAACCAGGG GATGCAAGT		743
Human Delta	TGGATGTGAT GACCAACATG GATACGTGA CAAACCAGGG GATGCAAGT		455
Consensus	AGGGTGTGAT GACCAACATG GATACGTGA CAAACCAGGG GATGCAAGT		750
Mouse Delta DNA	GCAGAGTGG CTGGCAGGGC CGTACTGCG AGAGTGAT CCGTATCCA		793
Human Delta	GCAGAGTGG CTGGCAGGGC CGTACTGCG AGAGTGAT CCGTATCCA		505
Consensus	GCAGAGTGG CTGGCAGGGC CGTACTGCG AGAGTGAT CCGTATCCA		800
Mouse Delta DNA	GGTGTCTCC ATGGCACCTG CCAGCAACC TGGCAGTGA ACTGCCAGGA		843
Human Delta	GGTGTCTCC ATGGCACCTG CCAGCAACC TGGCAGTGA ACTGCCAGGA		555
Consensus	GGTGTCTCC ATGGCACCTG CCAGCAACC TGGCAGTGA ACTGCCAGGA		850
Mouse Delta DNA	AGG TGGGGG GGCCTTTTCT GCAACCA GA CCTGAAC TAC TGAAC CACC		893
Human Delta	AGG TGGGGG GGCCTTTTCT GCAACCA GA CCTGAAC TAC TGAAC CACC		605
Consensus	AGG TGGGGG GGCCTTTTCT GCAACCA GA CCTGAAC TAC TGAAC CACC		900
Mouse Delta DNA	ATAAGCCCTG CAGGAATGGA GCCACCTGCA CCAACACGG GCCAGGGG A		941
Human Delta	ATAAGCCCTG CAGGAATGGA GCCACCTGCA CCAACACGG GCCAGGGG A		655
Consensus	ATAAGCCCTG CAGGAATGGA GCCACCTGCA CCAACACGG GCCAGGGG A		950
Mouse Delta DNA	GCTACACATG ATCTT-GCC GACCTGGGT AATAA GGTG CCAACTGIG		986
Human Delta	GCTACACTG ATCTTGGCC GACCTGGGT AATAA GGTG CCAACTGIG		705
Consensus	GCTACACATG ATCTTGGCC GACCTGGGT AATAA GGTG CCAACTGIG		1000
Mouse Delta DNA	AGCT--GGGA GTAGAGAG TG-TGTCCT AGCCCTTGC AAGAACGGAG		1031
Human Delta	AGCTTGGGA GTAGAGAG TGTTGACUCC AGCCCTTGGT AAGAACGGAG		755
Consensus	AGCTTGGGA GTAGAGAG TGTTGMYCCV AGCCCTTGGV AAGAACGGAG		1050
Mouse Delta DNA	CGAGCTGCAC GGAICTT--G AGACAGCTT CTCGTGACC TGCCCTCCCG		1079
Human Delta	CGAGCTGCAC GGAICTTGG AGACAGCTA CTCGTGACC TGCCCTCCCG		805
Consensus	CGAGCTGCAC GGAICTTGG AGACAGCTW CTCGTGACC TGCCCTCCCG		1100
Mouse Delta DNA	GCTTCTATGG CAACCTCTGT GAGCTGACTC CCATGACCTG TGCAGATGGC		1129
Human Delta	GCTTCTACGG CAACCTCTGT GATTGAGTG CCATGACCTG TGCAGATGGC		855
Consensus	GCTTCTATGG CAACCTCTGT GATGAGTG CCATGACCTG TGCAGATGGC		1150
Mouse Delta DNA	CCTTGCTTAA ATGGGGACG ATGTCAGAT ATCCCTGACG GAGGCTACAC		1179
Human Delta	CCTTGCTTAA ATGGGGACG ATGTCAGAC ATCCCTGATG GAGGCTACAG		905
Consensus	CCTTGCTTAA ATGGGGACG ATGTCAGAY ATCCCTGAGG GAGGCTACAG		1200
Mouse Delta DNA	CTGCCATGTC CCGTGGGCT CTCGGGCTT CAACTGTGAG AAGAAGATGG		1229
Human Delta	CTGCCATGTC CCGTGGGCT CTCGGGCTT CAACTGTGAG AAGAAGATGG		955
Consensus	CTGCCATGTC CCGTGGGCT CTCGGGCTT CAACTGTGAG AAGAAGATGG		1250
Mouse Delta DNA	ATCTCTGCG CTCTTCCTT TGTTCFAAG GTGCCAAGTG TGTGGACCTC		1279
Human Delta	ACTACTGCG CTCTTCCTT TGTTCFAAG GTGCCAAGTG TGTGGACCTC		1005
Consensus	ATCTCTGCG CTCTTCCTT TGTTCFAAG GTGCCAAGTG TGTGGACCTC		1300

FIG. 13 (cont'd)

Mouse Delta vs Partial Human Delta

Mouse Delta DNA	GGCAACTCTT ACCTGTGCCG TCCCAGGCT GGCTTCTCG GGAGGACTG	1329
Human Delta	GGTGATGCTT ACCTGTGCCG TGGCAGGCC GGCTTCTCG GGAGGACTG	1055
Consensus	GGTATGCTT ACCTGTGCCG TGGCAGGCC GGCTTCTCG GGAGGACTG	1350
Mouse Delta DNA	CGAGGACAAAT GTGGATGACT GTGCCTCCTC CCCGTGAGCA AATGGGGGCA	1379
Human Delta	TGAGGACAAAT GTGGATGACT GTGCCTCCTC CCCGTGAGCC AATGGGGGCA	1105
Consensus	TGAGGACAAAT GTGGATGACT GTGCCTCCTC CCCGTGAGCA AATGGGGGCA	1400
Mouse Delta DNA	CCTGCCGGGA CAGTGTGAAC GACTTCTCCT GACCTGCCC CCTGGCTAC	1429
Human Delta	CCTGCCGGGA TGGTGTGAAC GACTTCTCCT GACCTGCCC CCTGGCTAC	1155
Consensus	CCTGCCGGGA TGGTGTGAAC GACTTCTCCT GACCTGCCC CCTGGCTAC	1450
Mouse Delta DNA	ACGGGCAAGA ACTGCAGGC CCCGAGCAGC AGGTGAGGC ATGCACCCCTG	1479
Human Delta	ACGGGCAAGA ACTGCAGGC CCCGAGCAGC AGGTGAGGC ATGCACCCCTG	1205
Consensus	ACGGGCAAGA ACTGCAGGC CCCGAGCAGC AGGTGAGGC ATGCACCCCTG	1500
Mouse Delta DNA	CCATTAATGGG GCCACCTGCC AATAGAGGGG CCATCGCTAC ATGTGTGAGT	1529
Human Delta	CCATTAATGGG GCCACCTGCC AATAGAGGGG CCATCGCTAT TTGTGTGAGT	1255
Consensus	CCATTAATGGG GCCACCTGCC AATAGAGGGG CCATCGCTAT TTGTGTGAGT	1550
Mouse Delta DNA	GCGCCGAGG CTATGGGGG CCCAACTGCC AATTCTGCT CCCTGAGCC	1578
Human Delta	GCGCCGAGG CTATGGGGG CCCAACTGCC AATTCTGCT CCCTGAGACT	1305
Consensus	GCGCCGAGG CTATGGGGG CCCAACTGCC AATTCTGCT CCCTGAGACT	1600
Mouse Delta DNA	-ACCAACAGG CCCATGGTG GTGGATCTC ACTGATAGGC ATATGCAGA	1625
Human Delta	GCCCCCAGG CCCATGGTG GTGGATCTC CCTTAAAAA ACCTAAGAG	1355
Consensus	GMCCACAGG CCCATGGTG GTGGATCTC MSYATARRM AMTARRACR	1650
Mouse Delta DNA	GCCAGGGGGG GCCCATCCCC TCCCTGCGG TGTGAGCCGG GGTGGTCTT	1675
Human Delta	GCCAGGGGGG GCCCATCCCC TCCCTGCGG TGTGAGCCGG GGTGATCTT	1405
Consensus	GCCAGGGGGG GCCCATCCCC TCCCTGCGG TGTGAGCCGG GGTGGTCTT	1700
Mouse Delta DNA	GTCCTCTGTC TGCTGCTGGG CTGTGCGCT GTGGTGGTCT GCGTCCGGCT	1725
Human Delta	GTCCTCTGTC TGCTGCTGGG CTGTGCGCT GTGGTGGTCT GCGTCCGGCT	1455
Consensus	GTCCTCTGTC TGCTGCTGGG CTGTGCGCT GTGGTGGTCT GCGTCCGGCT	1750
Mouse Delta DNA	GAGGCTACAG AATCACCAGC CTTCACTGGA ACCCTGTGGG GGAGAGACAG	1775
Human Delta	GAGGCTACAG AATCACCAGC CTTCACTGGA ACCCTGTGGG GGAGAGACAG	1505
Consensus	GAGGCTACAG AATCACCAGC CTTCACTGGA ACCCTGTGGG GGAGAGACAG	1800
Mouse Delta DNA	AATACCATGAA CAACCTAGGC AATGCCAGC GGAGAGAAGGA CTTTCTGTT	1825
Human Delta	AATACCATGAA CAACCTAGGC AATGCCAGC GGAGAGAAGGA CTTTCTGTT	1555
Consensus	AATACCATGAA CAACCTAGGC AATGCCAGC GGAGAGAAGGA CTTTCTGTT	1850
Mouse Delta DNA	AGCATCATG GGGTACCA GATCAAGAAC ACCAACAAGA AGGCGGACTT	1875
Human Delta	AGCATCATG GGGTACCA GATCAAGAAC ACCAACAAGA AGGCGGACTT	1605
Consensus	AGCATCATG GGGTACCA GATCAAGAAC ACCAACAAGA AGGCGGACTT	1900
Mouse Delta DNA	TCACGGCGAC CATGGAGCCA AGAAGACAG CTTAAGGTC CGTACCCCA	1925
Human Delta	CCACGGCGAC CACAGAGCCA AGAAGATGG CTTAAGGTC CGTACCCAG	1655
Consensus	TCACGGCGAC CATGGAGCCA AGAAGARYG CTTAAGGTC CGTACCCMR	1950

FIG. 13 (cont'd)

Mouse Delta vs Partial Human Delta

Mouse Delta DNA	CTGTGGACTA TAACCTCGTT	CCAGACCTCA AGGGAGATGA	AGCCACCGTC	1975		
Human Delta	NGGTGGACTA TAACCTCGTG	CAGGACCTCA AGGGAGATGA	CACCCCGTC	1705		
Consensus	NKGTGGACTA TAACCTCGTK	CRGACCTCA AGGGAGATGA	NRCCCGCGTC	2000		
Mouse Delta DNA	AGGGATACAC ACAGCAACCG	TGACACCAAG TG	CAGTCAC AGGCTCTGC	2025		
Human Delta	AGGGACCCCG ACAGCAACCG	TCACACCAAG TGN	CAGCCCG AGGCTCTTC	1755		
Consensus	AGGGATTCAC ACAGCAACCG	TGACACCAAG TGN	CAGTCAC AGGCTCTKC	2050		
Mouse Delta DNA	AGGAGAGGAG AA--GATCG	CC--CCACAC CTAA	GGGGT GG--AGAT	2067		
Human Delta	ACGGGAGGAG AAGGGGACCC	CCGACCCACA CTAA	GGGGT GGPGGAGCA	1805		
Consensus	AGGAGAGGAG AAGGGGACCS	CCGACCCACA CTAA	GGGGT GGPGGAGMW	2100		
Mouse Delta DNA	TCCTGACAGA AAAAGGCCCG	AGTCT--GTC	TACTCTAC T TCAAAGGAC	2113		
Human Delta	TCCTGAAGA AAAAGGCCCG	ACTTCGGGCT	TCTTCACIT TCAAAAGACA	1855		
Consensus	TCCTGAMAGA AAAAGGCCCG	ASTTYGGGY	TRYTCACIT TCAAAGGACA	2150		
Mouse Delta DNA	-ACCTAGTAC	CAGTCGGTGT	ATGTTCTCTC	TCGAGAA--A AGGATGAGTG	2160	
Human Delta	ANCRANGTAC	CAGTCGGTGT	NGTTCATTC	CCNAGSAGGA AGGNTGAGTG	1905	
Consensus	ANCRANGTAC	CAGTCGGTGT	NGTTCATTC	CCNAGSAGGA AGGNTGAGTG	2200	
Mouse Delta DNA	TGTIATA--GC	GACTGAGCT--	GTAAGATGGA	AGCGATCTGG	CAAAATTCC	2208
Human Delta	CGTATAGCA	ANTTGAGCTN	GTAARNITGN	AG--T-TG--	--ANNTT---	1945
Consensus	VGTMATAGCM	RNYTGAGCTN	GTAARNITGN	AGCGATCTGG	CAANNITCC	2250
Mouse Delta DNA	ATTCTCTCA	AAATAATTC	CAAGGATATA	GCOCGGTGA	ATGCTCTGA	2258
Human Delta	-- --GGA	AAGNNN--	TC CCGGAT---	--TCCGVI--	---TTC---	1972
Consensus	ATTCTCTCA	AAKNNNATTC	CMMGGATATA	GCYCCGTTGA	ATGCTCTGA	2300
Mouse Delta DNA	GAGACGAAGG	GAGAGCAAC	CCACGGACTG	CTGCTGAGAA	CCAGGTTGAG	2308
Human Delta	-- --	AAA--	-----G	TTTTT-----	-----	1981
Consensus	GAGAGGAAGG	GAGAGCAAC	CCAGGGACTG	CTKVTGAGAA	CCAGGTTGAG	2350
Mouse Delta DNA	GCGAAGCTGG	TTCTCTCAGA	GTTAGCAGAG	GCGCCCGACA	CTGCCAGCCT	2358
Human Delta	-- --	-----	-----	-----	-----	1981
Consensus	GCGAAGCTGG	TTCTCTCAGA	GTTAGCAGAG	GCGCCCGACA	CTGCCAGCCT	2400
Mouse Delta DNA	AGGCTTTGGC	TGCCCTTGA	CTGCTGCTG	GTTGTTCCCA	TTGCACTATG	2408
Human Delta	-- --	-----	-----	-----	-----	1981
Consensus	AGGCTTTGGC	TGCCCTTGA	CTGCTGCTG	GTTGTTCCCA	TTGCACTATG	2450
Mouse Delta DNA	GACAGTTGCT	TTGAAGAGTA	TATATTTAAA	TGGACGAGTG	ACTTGATTCA	2458
Human Delta	-----	-----	-----	-----	-----	1981
Consensus	GACAGTTGCT	TTGAAGAGTA	TATATTTAAA	TGGACGAGTG	ACTTGATTCA	2500
Mouse Delta DNA	TATACGAAGC	ACGCACTGCC	CACACGTCTA	TCTTGATTA	CTATGAGCCA	2508
Human Delta	-- --	-----	-----	-----	-----	1981
Consensus	TATAGGAAGC	ACGCACTGCC	CACACGTCTA	TCTTGATTA	CTATGAGCCA	2550
Mouse Delta DNA	GTCTTTCCCTT	GAAGTAGAAA	CACAACTGCC	TTTATTGTCC	TTTTTGATAC	2558
Human Delta	-----	-----	-----	-----	-----	1981
Consensus	GTCTTTCCCTT	GAAGTAGAAA	CACAACTGCC	TTTATTGTCC	TTTTTGATAC	2600

FIG. 13 (cont'd)

Mouse Delta vs Partial Human Delta

Mouse Delta DNA	TGAGATGTGT TTTTMTTTT CCTAGACCGG AAAAAGAAAA CCTGTGTTAT	2608
Human Delta	-----	1981
Consensus	TGAGATGTGT TTTTMTTTT CCTAGACCGG AAAAAGAAAA CGTGTGTTAT	2650
Mouse Delta DNA	TTTTTTGGGA TTTGTAAAA TATTTTTCAT GATATCTGTA AAGCTTGAGT	2658
Human Delta	-----	1981
Consensus	TTTTTTGGGA TTTGTAAAA TATTTTTCAT GATATCTGTA AAGCTTGAGT	2700
Mouse Delta DNA	ATTTTGAGAC GTTCATTTT TTATAATTTA AATTTTGGTA AATATGTACA	2708
Human Delta	-----	1981
Consensus	ATTTTGAGAC GTTCATTTT TTATAATTTA AATTTTGGTA AATATGTACA	2750
Mouse Delta DNA	AAGGCACTTC GGGTCTATGT GACTATATTT TTTTGTATAT AAATGTATTT	2758
Human Delta	-----	1981
Consensus	AAGGCACTTC GGGTCTATGT GACTATATTT TTTTGTATAT AAATGTATTT	2800
Mouse Delta DNA	ATGCAATATT GTGCAAAATGT TATTTGAGTT TTTTACTGTT TTGTTAATGA	2808
Human Delta	-----	1981
Consensus	ATGGAATATT GTGCAAAATGT TATTTGAGTT TTTTACTGTT TTGTTAATGA	2850
Mouse Delta DNA	AGAAATTCAT TTTAAAAATA TTTTCCAAA ATAAATATAA TGAAC TACA	2857
Human Delta	-----	1981
Consensus	AGAAATTCAT TTTAAAAATA TTTTCCAAA ATAAATATAA TGAAC TACA	2899

FIG. 13 (cont'd)

G F T W P Q T F S L I I E A L H T D S P D> 21
 D L A T E N P E R L I S R L A T Q R H L> 41
 T V G E E W S Q D L H S S G R T D L K Y> 61
 S Y R F V C D E H Y Y G E G C S V F C R> 81
 P R D D A F G H F T C G E R G E K V C N> 101
 P G W K G P Y C T E P I C L P G C D E Q> 121
 H G F C D K P G E C K C R V G W O G R Y> 141
 C D E C I R Y P G C L H G T C Q Q P W O> 161
 C N C Q E G W G G L F C N Q D L N Y C T> 181
 H H K P C K N G A T C * T N T G Q G * 198
 S Y T * P S R * K N G G S L T D L * 213
 E N S Y S C T C P P G F Y G K I C E L S A M> 235
 T C A D G P G F N G G R C S D S P D G G> 255
 Y S C R C P V G Y S G F N C E K K I D Y> 275
 C S S S P C S N G A K C V D L G D A Y L> 295
 C R C Q A G F S G R H C D D N V D D C A> 315
 S S P C A N G G T C R D G V N D F S C T> 335
 C P P G Y T G R N C S A P A S R C E H A> 355
 P C H N G A T C H E R G H R Y * C E C A> 374
 R S Y G G P N C * F L L P E * P P G P * 391
 V V * L L L G C A A V V V C V R L R L Q K H> 412
 R P P A D P * R G E T E T M N N L * 428
 N C Q R E K D I S V S I I G * T Q I K N T N> 449
 K K A D F H G D H * A D K N G F K A R Y P * 469
 V D Y N L V O D L K G D D T A V R D A H S K R D T K * 495
 Q P O G S S G E E K G T P * P T L R * G G * 514
 I * R K R P * S * S T * S K D * T * 526
 C V I * E V * 531

FIG. 14